

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A display device substrate, comprising:
one or more pixel electrodes each of which is provided on each intersection of a signal line and a scanning line that are provided on an insulating substrate; and
an interlayer insulating film stacked between the signal line and the pixel electrode, wherein

in view of a vertical direction with respect to a surface of the insulating substrate, the signal line is provided on an area on which the pixel electrode is not provided, and a gap is provided between the signal line and the pixel electrode; and.

in view of a vertical direction with respect to the surface of the insulating substrate, a gap covered by only a layer having an insulating property is provided between the signal line and the pixel electrode, and the layer having the insulating property and covering the gap includes a light shielding film having an insulating property.

2. (Cancelled) The display device substrate as set forth in claim 1, wherein in view of the vertical direction with respect to the surface of the insulating substrate, (i) a surface of the signal line and (ii) the gap between the signal line and the pixel electrode are covered by a light shielding film.

3. (Currently Amended) The display device substrate as set forth in claim 21,
wherein the light shielding film is made of resin having an insulating property.

4. (Original) The display device substrate as set forth in claim 1, further comprising:

an active element provided on each intersection of the signal line and the scanning line;

a light shielding film provided so as to cover at least a surface of the signal line among the signal line, the active element, and the scanning line, wherein

in view of the vertical direction with respect to the surface of the insulating substrate, a gap between the pixel electrodes which are adjacent to each other with the signal line therebetween is covered by the light shielding film.

5. (Original) The display device substrate as set forth in claim 4, wherein the light shielding film is made of resin having an insulating property.

6. (Original) The display device substrate as set forth in claim 1, further comprising:

an active element provided on each intersection of the signal line and the scanning line; and

a light shielding film provided so as to cover at least a surface of the signal line among the signal line, the active element, and the scanning line, wherein

in view of the vertical direction with respect to the surface of the insulating substrate, (i) the light shielding film which covers the surface of the signal line film and (ii) the pixel electrode overlap with each other.

7. (Original) The display device substrate as set forth in claim 6, wherein the light shielding film is made of resin having an insulating property.

8. (Original) The display device substrate as set forth in claim 1, further comprising:

an active element provided on each intersection of the signal line and the scanning line;

a contact hole for allowing the active element and the pixel electrode to be in contact with each other; and

a light shielding film provided so as to cover surfaces of the active element, the signal line, and the scanning line, wherein

in view of the vertical direction with respect to the surface of the insulating substrate, (i) the light shielding film which covers the surface of the signal line film and (ii) the pixel electrode overlap with each other.

9. (Original) The display device substrate as set forth in claim 8, wherein the light shielding film is made of resin having an insulating property.

10. (Original) The display device substrate as set forth in claim 1, further comprising:

an active element provided on each intersection of the signal line and the scanning line;

a contact hole for allowing the active element and the pixel electrode to be in contact with each other; and

a light shielding film provided so as to cover at least a surface of the signal line among the signal line, the active element, and the scanning line, wherein:

the interlayer insulating film is a stacking body made of two or more layers, and

the light shielding film is stacked between an uppermost layer and a lowermost layer that constitute the interlayer insulating film, and

in view of the vertical direction with respect to the surface of the insulating substrate, a gap between the pixel electrodes which are adjacent to each other with the signal line therebetween is covered by the light shielding film.

11. (Original) The display device substrate as set forth in claim 10, wherein the light shielding film is made of resin having an insulating property.

12. (Original) The display device substrate as set forth in claim 10, wherein the light shielding film is made of metal.

13. (Original) The display device substrate as set forth in claim 1, further comprising:

an active element provided on each intersection of the signal line and the scanning line;

a contact hole for allowing the active element and the pixel electrode to be in contact with each other; and

a light shielding film provided so as to cover at least a surface of the signal line among the signal line, the active element, and the scanning line, wherein:

the interlayer insulating film is a stacking body made of two or more layers, and

the light shielding film is stacked between an uppermost layer and a lowermost layer that constitute the interlayer insulating film, and

in view of the vertical direction with respect to the surface of the insulating substrate, (i) the light shielding film which covers the surface of the signal line film and (ii) the pixel electrode overlap with each other.

14. (Original) The display device substrate as set forth in claim 13, wherein the light shielding film is made of resin having an insulating property.

15. (Original) The display device substrate as set forth in claim 13, wherein the light shielding film is made of metal.

16. (Original) The display device substrate as set forth in claim 1, further comprising:

an active element provided on each intersection of the signal line and the scanning line;

a contact hole for allowing the active element and the pixel electrode to be in contact with each other; and

a light shielding film provided so as to cover surfaces of the active element, the signal line, and the scanning line, wherein:

the interlayer insulating film is a stacking body made of two or more layers,

the light shielding film is stacked between an uppermost layer and a lowermost layer that constitute the interlayer insulating film, and

in view of the vertical direction with respect to the surface of the insulating substrate, (i) the light shielding film which covers the surface of the signal line film and (ii) the pixel electrode overlap with each other.

17. (Original) The display device substrate as set forth in claim 16, wherein the light shielding film is made of resin having an insulating property.

18. (Original) The display device substrate as set forth in claim 16, wherein the light shielding film is made of metal.

19. (Original) The display device substrate as set forth in claim 1, wherein the gap is set to be within a range of from not less than 1 μ m to not more than 20 μ m.

20. (Original) A liquid crystal display device, comprising the display device substrate as set forth in claim 1.

21. (New) A display device substrate, comprising:

plural pixel electrodes each of which is associated with a respective intersection of a signal line and a scanning line provided on a substrate;

an interlayer insulating film formed between the signal line and the pixel electrode;

wherein in view of a vertical direction with respect to a surface of the substrate, the signal line is provided on an area on which the pixel electrode is not provided whereby a gap is provided between the signal line and the pixel electrode;

a size of the gap being set to provide a desired $\Delta\Delta\beta$ value which is interrelated with display unevenness.

22. (New) A display device substrate as set forth in claim 21, further comprising a light shielding film provided over the signal line and the gap, the pixel electrode being provided over at least a portion of the light shielding film.

23. (New) A display device substrate as set forth in claim 22, wherein the light shielding film comprises a resin having an insulating property.

24. (New) A display device substrate as set forth in claim 22, further comprising:

an active element provided for each respective intersection of the signal line and the scanning line;

wherein the light shielding film is provided so as to cover at least a surface of the signal line, the active element, and the scanning line.

25. (New) A display device substrate as set forth in claim 22, wherein the light shielding film covers a signal line associated with a first pixel electrode and is overlapped by a second pixel electrode, the first pixel electrode being directly driven by the signal line and the second pixel electrode not being directly driven by the signal line, an overlap of the second pixel electrode and the light shielding film having a width y , and wherein y is not less than 0.6 μm and not more than 5 μm .

26. (New) A display device substrate as set forth in claim 21, wherein the desired $\Delta\Delta\beta$ value is not more than 0.08, is preferably not more than 0.04, and is preferably not more than 0.01.

27. (New) A display device substrate as set forth in claim 21, wherein the interlayer insulating film comprises a stacking body, the stacking body comprising an upper interlayer insulating film and a lower interlayer insulating film.

28. (New) A display device substrate as set forth in claim 27, wherein the upper interlayer insulating film has a dielectric constant of about 3.7.

29. (New) A display device substrate as set forth in claim 27, wherein the upper interlayer insulating film has a thickness of about 2.5 μm .

30. (New) A display device substrate as set forth in claim 21, wherein the gap has a width in a range of not less than 1 μm and not more than 20 μm .

31. (New) A display device substrate as set forth in claim 21, wherein the pixel electrodes of the substrate are driven by a dot reversal driving system.

32. (New) A display device substrate as set forth in claim 21, further comprising an active device associated with each pixel electrode, the active device having a gate electrode and at least part of a source electrode, the pixel electrode being formed over a gate electrode and at least part of a source electrode of its associated active device.

33. (New) A display device substrate, comprising:

 plural pixel electrodes each of which is associated with a respective intersection of a signal line and a scanning line provided on a substrate;

 an interlayer insulating film formed between the signal line and the pixel electrode;

 wherein in view of a vertical direction with respect to a surface of the substrate, the signal line is provided on an area on which the pixel electrode is not provided whereby a gap of width x is provided between the signal line and the pixel electrode;

 a light shielding film provided over the signal line and the gap, the pixel electrode being provided over at least a portion of the light shielding film;

 wherein the light shielding film covers a signal line associated with a first pixel electrode and is overlapped by a second pixel electrode, the first pixel electrode being directly driven by the signal line and the second pixel electrode not being directly driven by the signal line, an overlap of the second pixel electrode and the light shielding film having a width y;

 wherein x is in a range of not less than 1 μm and not more than 20 μm ; and

 wherein y is not less than 0.6 μm and not more than 5 μm .

34. (New) A display device substrate as set forth in claim 33, further comprising:
an active element provided for each respective intersection of the signal line
and the scanning line;
wherein the light shielding film is provided so as to cover at least a surface of the
signal line, the active element, and the scanning line.